

marginal spots on the anterior wings and a series of marginal spots on the posterior, tinged with reddish yellow. The fourth series cleft in anterior, almost entirely red, the third altogether red in posterior.)

Alæ inferiores subtus ut in *M. Chalcedonte* sed fascia flava prope radicem in maculas sex dissecta maculaque flava discalis puncto ejusdem coloris extus aucta. (The lower wings beneath as in *chalcedona* but yellow bands near the base cut into six spots and the discal yellow spot increased outside by a spot of the same color.)

Melitea Quino may be distinguished at once by the entirely different and much gayer coloration of the upper side, which much more resembles that of *M. Anicia* than *M. Chalcedon*. To the latter species it comes nearest in the peculiar shape of the wings, so characteristically different in the two sexes. In *M. Anicia* this difference exists not to the same degree. The yellow part of the underside of the hind wings is much paler than in *M. Chalcedon* and *M. Anicia*. The yellow radical band is dissolved into six distinct but nearly connected maculæ. In *M. Chalcedon* this band is not interrupted and only the sixth macula is separated, making part of the yellow coloration of the anal side of the wing. From *M. Anicia* it differs besides, in the underside of the fore wings being nearly all of a reddish-brown color with scarcely any indication of the marking of the upper side, closely resembling *M. Chalcedon*. From both species *M. Quino* differs in the coloration of the club of the antenna.

This species I received from Dr. Cooper, formerly of the State Geological Survey, who collected several specimens near San Diego. I have called it *Quino* in remembrance of the California Pioneer, Padre Quino, the first European that ever succeeded in erecting a permanent settlement in California, and at the same time contributed very considerably by his learned writings to a more exact knowledge of these then scarcely discovered regions.

SOME NEW SPECIES AND VARIETIES OF NORTH AMERICAN LEPIDOPTERA

BY WM. BARNES, B. S., M. D.

Decatur, Illinois

Papilio daunus ragani, Barnes, ab. nov.

The broad black outer margin to the fore wings within the included row of yellow intravenular bars is not solid even black as in the typical form, but shows the yellow ground color sprinkled unevenly with black scales, giving a peculiar moth-eaten appearance.

Baboquivari Mountains, Arizona. Holotype in Barnes collection.

***Oncocnemis homogena pallida* Barnes, race nov.**

Oncocnemis homogena Grote was described from a single specimen taken at Manitou, Colorado. The type is in the British Museum. 1874, Bull. U. S. Geol. Geog. Surv. III, 800. A series of specimens from Colorado, one of them compared with the type, all show the "yellowish gray" ground color mentioned by Grote.

The race *pallida*, represented by a series of nine specimens from **Eureka, Utah**, sent by Spaulding and taken in August, September and October, shows no trace of the yellowish tinge, the ground color being a pale grayish white, the markings same as in the typical form.

Holotype, male; allotype, female; paratypes 4 males, 1 female, all in Barnes collection.

***Oncocnemis arizonensis* Barnes, sp. nov.**

Collar discolorous brown; thorax dark gray; abdomen fuscous; basal line well marked; t.a. and t.p. lines black, course distinct as in *homogena*; median space darkened by brownish black scales more heavily toward the inner margin. From base to t.a. line the fore wing is of an even gray, a little paler than the thorax. There is a pale gray triangular patch beyond costal portion of t.p. line which extends about half way to apex; a similar patch extending from below the portion of the wing between these pale patches is dark brownish black; s.t. line irregular, mostly obscured by the dark terminal shade, better marked towards inner margin where it is thrown into relief by a slightly darker preceding shading; orbicular minute, pale, with dark annulus and black point at center; reniform narrow kidney-shaped, pale, with darkened center; a terminal series of black points and a pale line at base of fringes; fringes pale, checkered, darkened inwardly. Hind wings pale fuscous, broadly darkened outwardly; discal dot small; veins darkened by blackish scales; a few small venular dots is only indication of mesial band.

Beneath; fore wings pale along costal inner margin, elsewhere dusky; mesial band very obscure except a distinct black spot on costa. Hind wings glistening white, with broken median line not reaching inner margin; a dusky band along outer border of wing but not extending to inner margin. Discal dot small. Expanse 35 mm.

Holotype, male, No. 2564, Mus. Calif. Acad. Sci., collected by J. August Kusche, July 22, 1927, at **Turkey Flat, Chiricahua Mountains, Cochise County, Arizona**, 9000 feet elevation. Allotype, female, taken by J. August Kusche, at Rustler

Park, Chiricahua Mts., July 15, 1927, in the Barnes collection.
Allied to *homogena* and should follow it in the list.

***Oncocnemis figurata pallidior* Barnes, race nov.**

Oncocnemis figurata Harvey was described from a single specimen from Nevada as an *Homohadena*, 1875, Can. Ent., VII, 117. The type is in the British Museum and we have specimens from Truckee, California, and neighboring localities, which agree in every particular with the type specimen. The "uniformly griseous primaries" and "hind wings almost uniformly fuscous" are distinctive of the typical *figurata*.

In the race *pallidior* the fore wings are pale uniform gray with markings as in the typical form; hind wings whitish with dusky outer border. In the female the hind wings are lightly shaded with darker scales. The eight specimens before us are somewhat slighter in build and average less in expanse than the typical form. The head is black, contrasting with the pale wings. Expanse 25-28 mm.

Holotype, **Eureka, Utah**, July 26. Paratypes, three from Eureka, Utah, and four from Glenwood Springs, Colorado, all in Barnes collection.

***Oncocnemis minor* Barnes, sp. nov.**

Fore wings pale gray as in *figurata pallidior* but not quite so uniform, being somewhat paler just beyond the t.p. line. The t.a. and t.p. lines join in the middle of the wing and then, closely approximate so as to be almost fused, proceed direct to the inner margin. There is a faint pale irregular subterminal line not present in *figurata* or *ragani*. There is also a black line at base of fringes on fore wing not present in the other allied species. In *figurata pallidior* and *ragani* the third terminal black streak, counting from the costa, is the most prominent and extends across the t.p. line; the others as a rule do not reach the t.p. line. In this species the dashes, with the exception of the first and second, all reach the t.p. line, the head is concolorous with fore wings and the hind wings are white, shaded with fuscous terminally. Expanse 22 mm.

Holotype, **Eureka, Utah**, July 24-31, in Barnes collection.

***Oncocnemis ragani* Barnes, sp. nov.**

Head and base of collar black. Thorax concolorous with fore wings. Abdomen pale yellowish gray, very slightly darker terminally. A distinct fine black basal line; t.a. line almost transverse with very slight outward angle at middle, thickened at costal end; the t.p. line,

after a wide outward curve, approaches to within about 2 to 2½ mm. of the t.a. line, thence running parallel to it, at the same distance, to inner margin, not diverging as in *figurata* and *pallidior*. The black dash connecting the t.a. and t.p. lines passes the t.a. line which does not occur in any other of the allied species. This inward extension of the line is finer and not so prominent as that portion between the ordinary lines. There is a series of fine black terminal streaks, of which the third from the costa is most prominent and extends through the t.p. line. Fringe concolorous, with pale line at base. Hind wings glistening white with narrow fuscous line at base of the whitish fringe; a very faint mesial row of venular dots, from which to outer margin the veins are slightly darkened.

Beneath; fore wings dusky over upper two-thirds, pale along inner margin; mesial band distinct at costa, fading out toward inner margin; hind wings with costal margin yellowish gray, else white; mesial band distinct but not prominent.

To this beautiful species we have given the name in honor of a one-time friend who was of material assistance to us in collecting.

Holotype, Loma Linda, San Bernardino County, California, April 16, 1923. Paratypes two, San Diego County, California, April 8 and May 19, all in Barnes collection.

Graptolitha thaxteri rosetta Barnes, race nov.

Thaxteri was described 1874, Bull. Buff. Soc. Nat. Sci., II, 196, from a single male taken by Thaxter at Newtonville, Mass. The type is in the British Museum. A very long series from the eastern states and Canada as far west as Manitoba agree with the type and show very little variation. We have, however, two specimens from British Columbia which differ from the typical form sufficiently to deserve a varietal name. The soft violaceous fringe of the fore wings, so characteristic of *thaxteri* is wanting. The ground color in the variety is of a rather pale gray on which the dark brownish black markings and the reddish shadings are more contrasting. The white shades preceding the t.a. and s.t. lines are brighter than in *thaxteri*, thus defining the lines much more distinctly. Hind wings of the same reddish shade as in *thaxteri*.

On the whole the variety, because of the more sharply contrasting markings, presents a quite distinct appearance.

Holotype, New Westminster, B. C., Paratype, Vancouver, B. C., both in Barnes collection.

Graptolitha thaxteri alaskensis Barnes, race nov.

While the variety from British Columbia is much lighter than *thaxteri* this variety from Alaska is darker. The ground color is of a dark bluish gray and is encroached upon to a much greater degree by the dark shadings. The narrow pale edging to the t.a. line interiorly and a similar edging to the exterior of the t.p. line define these lines more distinctly than in the allied forms. The dark shading of the terminal space more distinctly defines the s.t. line.

Hind wings reddish brown, darker and not so bright as in the other forms. Expanse 38 mm., which is slightly less than in the other forms.

Holotype, male, **Chatanika, Alaska**, in Barnes collection.

Graptolitha vanduzeei Barnes, sp. nov.

Allied to, and should be listed next to, *lepida* Lintner. Head, collar, thorax and fore wings rather dark, somewhat bluish gray. Abdomen reddish fuscous; a narrow black band, edged above with white scales, through the middle of the collar; ordinary spots of moderate size, rather poorly defined, a trifle paler than the ground color; a fine black basal streak; median shade prominent, dark brownish black; a well marked short black dash connecting t.a. and t.p. lines submedianly. T.a. and t.p. lines very indistinct, fragmentary; s.t. line more distinct; brownish black, of poorly defined spots, the one at anal angle the most prominent; fringe checkered. Hind wings bright reddish as in *lepida* Lintn.; discal dot faint. In some lights there can be made out a very faint darker submarginal shade line from which to outer edge the wing is paler.

Beneath; primaries with discal spot prominent; transverse band faint; central part of wing from base to transverse line reddish brown, beyond the line tinged with gray. Secondaries with discal spot not so prominent while the transverse band is more prominent than on the fore wings; ground color brighter red than on the fore wings, while the same grayish tinge pertains beyond the transverse line. Expanse 40 mm.

Holotype No. 2565, Mus. Calif. Acad. Sci., taken by Mr. L. S. Slevin, January 27, 1926, at **Carmel, California**. One paratype taken by Mr. Slevin at same place December 25, 1927, in the Barnes collection.

We take great pleasure in naming this beautiful species after Mr. E. P. Van Duzee, who is making every effort to build up the collection of Lepidoptera at the California Academy of Sciences.

***Athetis distincta* Barnes, sp. nov.**

Fore wings even pale blackish gray; thorax darker; collar dark at base, tipped with white scales; palpi black outwardly, tipped with white; abdomen yellowish fuscous. Basal line faintly indicated by a few black scales on costa; t.a. line not traceable, a faint black spot on costa only indicating its inception; t.p. line starting between two black spots on costa, running outwardly along costa to beyond cell, from thence evenly to inner margin following the curve of the outer margin, pale, with narrow dark inner shade, not conspicuous; s.t. line rather contrasting, pale with distinct black inner shade at its middle portion, somewhat broadened at anal angle; a terminal series of distinct short black bars separated by white points. Fringe concolorous. Ordinary spots black, conspicuous; orbicular oblong, about twice as long as wide, rounded outwardly, extended to a point inwardly, thickened in the middle above; reniform kidney-shaped, concavity lightened with a few white scales. Hind wings white; discal dot faint; a broken black line at base of the concolorous fringes and a few black scales along the veins at margin.

Beneath: fore wings pale, dusky through cell, lightening toward discal dot beyond which is a whitish blotch; mesial band distinct from costa, fading out before reaching inner margin; a faint subterminal band two-thirds across wing and a series of clearly defined short black bars at base of fringes. Hind wings white, slightly yellowish along upper margin, with a distinct dot and a row of black bars at base of fringes. Expanse 29 mm.

Holotype, male, **Inyo County, California**, October 10, 1922, in Barnes collection.

***Zanclognatha martha* Barnes, sp. nov.**

Ground color bright purplish brown, somewhat darker outwardly. Head and thorax concolorous; ordinary lines in most specimens tending to obsolescence except on costa; basal line not traceable except very faintly in two specimens; t.a. line slender dark brown, well marked on costa, elsewhere faint, beginning with an outward projection from costa it runs across the wing directly or with a slight outward curve; moderate outward angulations between veins; t.p. line slender brown; most distinct on costa, else in many specimens barely traceable, denticulate on veins, exserted beyond cell; below the cell the line is drawn inwardly, then outwardly to inner border; s.t. line ridged, pale, rarely conspicuous, barely traceable in some specimens; terminal row of fine black lunules at base of concolorous fringes; usually with a vague brownish median shade. Orbicular wanting; reniform oval, dark, in some specimens well marked, in others barely traceable. Secondaries paler than primaries; extra median line dark; discal dot distinct or faint; subterminal line

present, sometimes marked by pale scales; a terminal row of neat black dashes at base of the concolorous fringes.

Beneath paler, grayish brown; powdery markings neatly and distinctly defined; all wings with discal dot and dark extra-mesial band. Some specimens show a faint subterminal band on hind wings. Expanse 29 mm.

Holotype, male, and allotype, female, in Barnes collection; paratypes five males, two females, in Barnes collection and eight males and three females in Lemmer collection, all from Lakehurst, N. J.

The specimen mentioned by Smith under *protumnosalis* Walker, Bull. 48, U. S. N. M., 1895, p. 43, is probably this species although there is but a single female out of the 19 specimens before us as small as the one he had.

Named for Mrs. Lemmer as a slight token of our appreciation of her valuable assistance to Mr. Lemmer in collecting so many rare specimens in the Pine Barrens of New Jersey.

***Zanclognatha jacchusalis bryanti* Barnes, race nov.**

A series of specimens taken at Westminster, B. C., differ to such a degree from long series of the eastern *jacchusalis* and *ochreipennis* as well as from *latalba* of Manitoba that they seem entitled to a varietal name. While the markings are the same as in *jacchusalis* the ground color is paler. The outer third of the fore wing is covered by a darker brown shading. The ordinary markings, except the subterminal line, are even less distinct, being practically lost in some specimens.

The contrasting shades of the fore wing, pale inwardly, dark outwardly, should serve to separate this variety.

Holotype, male, allotype, female, and six male and one female paratypes collected by Theo. Bryant at **Wellington, B. C.**, and Duncans, Vancouver Island, in the Barnes collection.

***Paraphia esther* Barnes, sp. nov.**

Expanse 29-31 mm. Fore wings from base to t.p. line dark ashen gray, more or less darkened by brownish black scales. Beyond the line is a broad reddish shade followed by a broad terminal dark blackish border to the wing. The reddish band varies much in distinctness, in some specimens being considerably obscured, especially towards costa, by dark scales.

T.a. line dark, oblique from costa, thence by a gentle curve to inner margin, variably distinct in different specimens, sometimes not traceable. Median shade quite distinct in some specimens, in others not traceable. T.p. line brownish black, usually broken, occasionally entire. Discal black dot usually in evidence. A distinct white subapical spot. Fringe dark basally, whitish outwardly, cut by dark points at end of veins. Secondaries with a slight outward angle. Coloration as in primaries; median shade sometimes distinct, usually scarcely traceable. Discal dot present. The fringes of both wings in all the specimens are largely worn away, but the edge of the fore wings is apparently slightly scalloped and that of the hind wings somewhat more so.

Beneath markings as above but paler.

Described from 15 males, one from Southern Pines, N. C., May 1-7, the remainder from Lakehurst, N. J., June and July.

Holotype, male and 6 paratypes in the Barnes collection. Seven paratypes in Lemmer collection.

Named in honor of Mrs. Esther Murray, who, Mr. Lemmer informs me, has given him valuable assistance in collecting.

***Paraphia esther lemmeri* Barnes, form nov.**

Four males and the single female show no trace of the subapical white dot. Considerable confusion has been caused by later authors giving names to varieties and aberrations mentioned by previous describers. In case, as has often happened, the original author has incorrectly identified the species and has not labelled the variety or aberration, it becomes impossible to correctly place the name applied by the subsequent writer. For this reason it seems better to definitely fix the type at this time.

The males correspond in all respects with the type form with the exception of wanting the apical white dot.

The only female before me is of this form. Expanse 39 mm. More evenly colored. While in evidence, the reddish and grayish portions of the wings are so obscured by darker scales as to almost obliterate the contrast so evident in the male.

Holotype male, allotype female, and one paratype in Barnes collection. Two male paratypes in Lemmer collection. Same locality and dates as the type form.

Scizura unicornis deserta Barnes, race nov.

A well marked race much paler throughout than the eastern typical form. Fore wings pale gray with markings as in *unicornis* but brighter, more contrasting, with much less red. Hind wings usually white, a little dusky in some specimens. In the female the hind wings are uniformly darker gray with well marked mesial white line.

Eureka, Stockton and Callao, Utah, July, Spalding. Twenty-seven males, 3 females.

Holotype male, allotype female; paratypes 26 males, 2 females, all in Barnes collection.

RECENT GIFTS TO THE CALIFORNIA ACADEMY OF SCIENCES

Two interesting additions have recently been made to the collections in the entomological department of the Academy of Sciences. Mr. J. O. Martin has presented his collection of Coleoptera subject to the same conditions under which a number of other collections have recently been accepted by the Academy, assuring Mr. Martin the use and control of his material during his lifetime. Mr. Martin's collection, numbering perhaps 20,000 specimens, consists mostly of the beetles of California and includes exceptionally interesting series of certain restricted groups among the aquatics and other forms.

Another notable gift is the collection of North American Delphacidæ accumulated by Mr. W. M. Giffard of Honolulu and presented by him to the Academy. Mr. Giffard's gift includes long series of our California species taken by him in various parts of the state, some northern and eastern specimens, and the North American material in the D. M. Crawford collection. To this collection, which numbers nearly 1400 specimens, Mr. Otto Swezey has added a small but valuable series of delphacids taken by him in Ohio. Mr. Giffard's gift is of additional value on account of its having been used by Mr. Giffard and Mr. Muir in their studies on the North American Delphacidæ and includes all of Mr. Giffard's beautifully executed genitalic mounts made from these specimens. This gift, with the very considerable delphacid material already in the museum of the Academy, makes this, perhaps, the largest series of these interesting little leaf-hoppers in this country.—
E. P. Van Duzee.